

## **Chapter 3**

### **Gender segregation in employment: Italy and Chile in comparison**

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#### **Keywords:**

Gender segregation in employment; labour market segmentation theories; comparative analysis; Italy, Chile; dissimilarity index

#### **Abstract**

This chapter considers, from a comparative perspective, gender segregation in employment while comparing two national contexts in Europe and Latin America. Particularly, starting from the analysis of the growth trends of female participation in the labour market during the last twenty-five years (1992–2017), it will investigate both sectoral and occupational segregation. In partial contrast to human capital theories and neoclassical economics, feminization patterns and gender inequalities are framed, theoretically, within labour market segmentation approach. Our preliminary hypothesis is based on the assumption that the distribution of occupations - measured by a gender segregation index - is comparable in Italy and Chile, although major dissimilarities in the level of socio-economic development.

## 1. Introduction

The chapter, which has been developed within the INCASI<sup>1</sup> project, considers gender segregation in employment in two national countries in Europe and Latin America. It specifically analyses the growth trends of the female workforce in the last twenty-five years, the gender patterns related to sectoral and occupational concentration and gender pay gaps. We consider feminization of employment models and gender inequalities from the theoretical perspective of the labour market segmentation theory, conceived as an alternative to human capital theories and neoclassical economics. Starting from the concepts of labour market segmentation and occupational segregation through a gender perspective, the chapter deals with the theoretical background within which the data analysis and interpretation is to be inserted. Furthermore, we present some descriptive data on the labour market in the two countries, Italy and Chile. Based on the 1992–2017 historical series in both countries, through the same harmonized equivalent labour force survey dataset, it describes the trajectories of labour market feminization and measures gender segregation using a dissimilarity index – the Women and Employment Index (WEI).

More specifically, the chapter has two objectives. One is to make a comparative analysis of the two labour market trends using the standard labour force indicators and following the gender dichotomy. The second, considering the segregation index, is to explain the patterns of labour inequalities and if the effects of gender segregation are similar in the two different contexts.

The initial hypothesis is in fact that the two countries (Italy and Chile), while different in terms of history, socio-economic development and institutional structure, show similar dynamics. We expect the emerging sectoral (horizontal) segregation to be based on similar gender inequality reproduction mechanisms, resulting from the social division of labour within society, cultural stereotypes and the economic devaluation of female-dominated activity sectors. Despite the increasing inclusion of women in the waged labour market in both contexts, being a woman is still one of the labour supply-side variables, which persists in pre-determining labour market outcomes, at same level of productivity.

Our statistical results seem to confirm this prediction. We expect that the labour market inequality mechanisms and ranking and sorting processes - which tend to reproduce a concentration of women in some both high-skill and low-skill sectors and occupations - are more solid than other influent exogenous variables, such as the national and institutional settings, and become a recurrent universalistic feature crossing both countries and continental borders.

We can say, in other words, that the sexual segregation of employment is remarkable because of its similar patterns found in different socio-economic contexts and its constancy over time.

<sup>1</sup> International Network for Comparative Analysis of Social Inequalities (INCASI), Horizon 2020 - Rise programme (Marie Skłodowska-Curie GA No. 691004), coordinated by Pedro López-Roldán. This chapter reflects the author's view only and the agency is not responsible for any use that may be made of the information it contains.

## **2. Gender segregation in employment: a conceptual framework**

As an alternative paradigm to human capital theories and neoclassical economics, labour market segmentation theories - arisen since the 1970s - assumed that working positions and wages depend mainly on investments in education and productivity levels. For the orthodox theory, in fact, labour market segmentation mainly depends on the economic system, namely the division among economic activity sectors, and impacts on employment characteristics and the labour market structure. Usually, each occupation represents the frame of relative socio-economic, cultural and welfare resources, such as income, educational attainment and social protection.

This relationship, in Latin America, has been highlighted by the “structural heterogeneity” theory – proposed by Pinto (1976) and continued by Salvia and Chavez-Molina (2013) – which defines structural differences in labour productivity and between economic sectors. This thesis, which incorporates a number of aspects of the underdevelopment economy, implies the coexistence of sectors, branches or activities whose labour productivity – given the composition of the invested capital – is high and similar to that of developed countries, with others whose productivity (given their backward technological level) is very low or zero.

Other new heterodox theories were developed from the 1970s to 80s in opposition to neoclassical economics. The dual labour market theory (Doeringer and Piore 1971) assumes that over time the economic process divided the labour market into two sectors, the primary sector consisting in well-paid and stable jobs, career opportunities, unionization and good working conditions, and the second sector characterized by low-paid and temporary jobs, poor working conditions and few chances of advancement. Through the construction of internal labour markets (ILMs) as an organizational tool, companies perpetuate stability for primary sector workers, in order to face the uncertainty of demand. Hence, wage structure, employment conditions and segmentation do not exclusively derive from individual attributes but also from demand-side drivers, such as employers’ attitudes or the broader structure of the economy. A radical version of the dual labour market theory (Edwards, Gordon and Reich 1973) argues, in the Marxist sense, that monopolistic capitalism has led to division both in the industrial sectors (uneven growth across industries) and in the workforce, wages and mobility patterns within the labour market.

The Cambridge School of labour market segmentation (Rubery 1978), in partial contrast to the two previous theories, recognizes that workers play a more active role and consider other complementary aspects to be crucial. In addition to workforce characteristics (such as education, qualifications, age, gender, nationality and so on) linked to different conditions within the labour market, on the demand side, it considers economic and commercial strategies, business ideologies and practices, and in particular labour flexibility and outsourcing. The Cambridge School also highlighted the role of labour institutions and public policies, which can indeed compensate inequalities, but can also perpetuate them and reinforce divisions within the employment.

These theories assume three recurrent conditions. First, there is not a single labour market but a division of the labour force into two or more segments that structure

hierarchical positions corresponding to specific occupational profiles among workers. Second, there is limited mobility between segments. Third, the differences in working conditions cannot only be attributed to differences in productivity. The recent labour market segmentation theories (Grimshaw et al. 2017) argue that differences in the working conditions and status of different groups of workers also depend on socio-economic characteristics: labour supply-side attributes may have an influence on the labour market outcomes.

One of the recurrent inequalities – based on individual attributes – is gender related.

A sexual division of labour exists in all cultures, as illustrated by anthropological research (Mead 1949). It is a universal phenomenon, but the assignment of jobs to men and women varies in different cultures. Since the 1960s, historical and sociological research has tried to explain the process of social construction of the division of labour and the formation of distinct gender identities. The focus is on the complex interaction of reproduction activities and productive work for the wage economy, as well as on the specificity of women's roles, which are studied in their historical evolution, during the industrialization process and subsequently in their configuration in contemporary society, mainly driven by the service sectors.

Following mainstream neoclassical economics, the principal cause of gender inequality and segregation in the labour market is explained by the human capital theory. It assumes that the position of men and women in work and employment is different because they have different preferences, different dispositions to invest in their human capital, such as education, training and preparation for work in general, and different attitudes towards work itself (Hakim 2000). Recent studies have highlighted other aspects, such as differences in competitiveness and risk-taking (Hoffman and Averett 2016). Hence, the economists possessed a strong interpretative paradigm to explain inequality, even if they were not concerned with clarifying why preferences differ among women, why they can change over time and how they vary depending on the circumstances.

The original risk of those approaches was that they could justify inequality based on individual orientation, as if the preferences were not shaped by social norms or cultural stereotypes.

The human capital model began to show its limits when women reached equal or higher educational levels than men. In all developed countries, raising female education has reduced gender inequalities in activity rates, but clear effects of the gender gap, segregation and discrimination are still evident.

A vast, especially neo-institutionalist literature, created by Colette Fagan, Jill Rubery, Mary Daly, Rosemary Crompton, Florence Jaumotte and others, has shown that more than male participation, female participation is conditioned by national institutions, such as welfare regimes, social policies or employment protection legislation. Both gender studies applied to welfare systems and the Varieties of Capitalism perspective have well illustrated how the sexual division of labour and the existence of more or less

egalitarian family models<sup>2</sup> have historically developed in different national contexts (Crompton 1999). Women's mass entry onto the labour market since the 1980s has been the most revolutionary change in developed economies, with immense effects on the rise of dual-income families, the demand for services and demographic trends. Female labour supply is influenced – more than that of men – by redistributive policies (via services, reconciliation measures and other incentives), as well as by the characteristics of labour demand and economic sectors, and the organizational environment (managerial culture, socialization models).

Feminist socio-economics on gender inequalities and discrimination has enriched our understanding of the mechanisms and constraints that too often make women a “secondary dual earner” (Grimshaw et al. 2017), even when they have the same skills and the same level of productivity.

The chapter focuses in particular on gender segregation, which manifests itself in differences in patterns of gender representation within occupations (both classified by industries and professional status) and within different employment status and employment contract groups. “Gender segregation means that women and men to a certain extent work in different occupations or in different sectors or under different contractual terms and conditions” (Emerek et al. 2003).

### **3. Patterns of labour market feminization in Europe and Latin America**

The first element to highlight is that employment and participation rates for women are still systematically lower than for men in almost all the European Member States - despite increasing in the last decades - while unemployment and, especially, inactivity rates are higher, particularly for married women.

Then, the gender gap remains significant. In Southern Europe, part-time work is largely involuntary and often associated with short hours and marginal, low-paid jobs, which are particularly common among low-skilled women.

Compared to full-time jobs, part-time is a factor contributing to the existing gender pay gap, as these jobs tend to be associated with lower hourly pay, fewer career opportunities and less social protection (such as unemployment benefits or pension). Employed women also show a higher incidence in temporary jobs and in lower pay sectors and occupations than men. In spite of more than thirty years of equal pay legislation, the gender pay gap<sup>3</sup> has persisted across all Member States regardless of the overall level of female employment (Vosko et al. 2009). According to Eurostat, in 2017, women's gross hourly earnings were on average 16.0% below those of men in the

<sup>2</sup> In some European countries, where there has been a shift from a traditional to an egalitarian family model, the diffusion of egalitarian norms combined with high levels of education are the preconditions for higher fertility rates (Esping-Andersen 2015).

<sup>3</sup> As defined by the European Commission, the gender pay gap is the difference between the average gross hourly earnings of male and female paid employees as a percentage of the average gross hourly earnings of male paid employees.

EU28, with wide differences between the countries.<sup>4</sup> A part of the pay gap is related to the differences in the average characteristics of working men and women such as: age, education, occupation, economic activity, employment contract, work hours, job experience, firm size, or employment in the private versus the public sector. Recent estimations have shown that these factors explain a small part of the gender pay gap. Eurostat estimates (based on the 2014 Structure of Earnings Survey microdata) show that, at the EU level, only 31% of the difference between men and women's hourly earnings can be attributed to the difference in the observed personal and job characteristics mentioned above, which are on average less favourable for women compared to men. The remaining two thirds are likely to be caused by career breaks following childbirth and discrimination in hiring, career progression and labour market opportunities (OECD 2017; Boll, Rossen and Wolf 2017). In Latin America, it is the structural heterogeneity of the labour market that has historically reproduced gender inequalities. A recent study<sup>5</sup> confirmed that there are still high levels of occupational gender segregation, which affects the opportunities for wage employment, full-time jobs or temporary contracts, social security or greater degrees of economic autonomy (Espino and De los Santos 2019). Furthermore, there are different labour trajectories for women, which reproduces gender inequalities. On the one hand, female professionals and technicians with high to middle incomes have difficulties achieving economic autonomy or managerial positions. On the other hand, women with low educational levels are employed in domestic services, low-skilled jobs (retail and traditional service activities) or the rural sector, in addition to having a greater burden of unpaid care work and higher rates of early maternity. According to the Economic Commission for Latin America and the Caribbean (CEPALSTAT), in Latin America in 2017 77.6% of women worked in low productivity activities (such as service, retail and agriculture), while the percentage of men was only 55.2%,<sup>6</sup> confirming that both high- to medium- and low-skilled women are employed in "female occupations" (De Oliveira and Ariza, 1999). Considering the condition of women in society in a more general sense, there are significant differences between the two countries. According to the Women, Business and the Law Index (WBL 2019 score), Italy is in 22nd place with a score of 94.38 out of 100, while Chile is in 97th place with a score of 77.50, which is nevertheless still higher than the global average of 74.71. However, on narrowing the field to analyse the labour market and segregation models, we found many similarities that justified the comparison in methodological terms.

In the context of Latin America, Chile has experienced an accelerated process of labour market feminization, more similar to the southern European countries than to the rest of Latin America. Italy and Chile show similar trends both in women's participation rates (57.8% in Chile, 55.6% in Italy) and employment rates (52% in Chile, 48.2% in Italy),

<sup>4</sup> Retrieved 7 February 2020, from the Eurostat Interact website: [https://ec.europa.eu/eurostat/statistics-explained/index.php/Gender\\_pay\\_gap\\_statistics](https://ec.europa.eu/eurostat/statistics-explained/index.php/Gender_pay_gap_statistics).

<sup>5</sup> The research was conducted in Brazil, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Mexico and Uruguay.

<sup>6</sup> Retrieved 7 February 2020, from the CEPALSTAT Interact website: <https://estadisticas.cepal.org/cepalstat/tabulador/ConsultaIntegrada.asp?idIndicador=2679&idioma=e>

according to the OECD (2017). The gender wage gap was 12.5% in Chile and 5.6% in Italy<sup>7</sup> and part-time work<sup>8</sup> is more concentrated among women (24.9% and 32.4% respectively) than men (12.5% and 8.3% respectively).<sup>9</sup> On the other side, despite having a different economic production structure, the feminization rates by sector of activity are similar. According to the World Bank, in 2017 female employment in the services sector grew in both countries, representing 84.9% in Italy and 83.9% in Chile, where this concentration is related to a parallel expansion of both high- and low-skilled jobs (Ruiz and Boccardo 2014). The corresponding rates for men are, respectively, only 59.7% in Italy and 56.9% in Chile. Similarly, female employment in industry is 12.8% in Italy and 10.8% in Chile while farming accounts for a mere 2.3% in Italy and 5.3% in Chile. However, in the Chilean case, informal work is more relevant. According to CEPALSTAT, in 2017, it accounted 28.1% of work in general (lower than the 45.9% of Latin America), and 32.2% for women.

Finally, the comparison is between an example of a declining economy (Italy) in a developed environment such as Europe, and a growing economy (Chile) in a context of premature de-industrialization (Rodrik 2016). Chile also represents a case of “advanced neoliberalism” (Ruiz 2019), typical of one group of countries in Latin America.

Considering the comparative framework just outlined, the chapter intends to explore some hypotheses. First, despite the differences in the socio-economic development models of the two countries and in the labour market feminization trends, we hypothesize that, while controlling the sectors over time, gender segregation is maintained in both qualified and unskilled services and in traditionally feminized occupations. Second, we expect employment segregation to be accompanied by a persistent gender pay gap: women continue to earn less than men, both because they are employed in different occupations and because of discrimination effects for the same productivity.

#### 4. Research methods and data

With the aim to describing gender segregation in employment, it has been used one heterogeneity index – the Women and Employment Index (WEI) – which measures the different presence of men and women within a specific classification of occupational groups.

$$WEI = 2DM/N$$

$$\text{with: } D = 0.5 \sum |F_i/F - M_i/M|$$

where F and M are the total number of woman and men, N the total number of cases, D

<sup>7</sup> In the case of Italy, the low gender pay gap is connected to the lower level of female employment and the over-representation of employees with a high level of education. In other words, there are fewer women employed in sectors with a low level of qualification and pay.

<sup>8</sup> We consider the common OECD definition of part-time employment as equivalent to people habitually working less than 30 hours a week in their main job (OECD 2019).

<sup>9</sup> Retrieved 7 February 2020, from OECD.Stat Interact website: <https://stats.oecd.org/Index.aspx>

the Duncan Segregation Index, and  $F_i$  and  $M_i$  the number of women and men employed in the occupational category  $i$ , The D Index is a classical and well-known index of segregation, widely used in labour market gender segmentation analysis, whose range – between 0 (minimum segregation) and 1 (maximum segregation) – is half the sum of the absolute differences between the male and female coefficients of representativeness calculated for each occupation (Duncan and Duncan 1959). The WEI is a slightly modified version of the D index where  $M / N$  is the share of men employed out of the total workforce. The WEI index diverges significantly from D when the ratio of male and female workers varies considerably (Siltanen, Jarman and Blackburn 1995). In particular, feminization in Chile has increased significantly in recent years, thus we will adopt the WEI index to describe the trend in gender segregation.

We applied these indices to the Labour Force Surveys in Italy from 1992 to 2017. It is important to consider that there are two breaks in the Italian data: a significant change took place between 2003 and 2004, when the survey was harmonized according to the European standards (Eurostat 2009); a second, less relevant change occurred from 2010 to 2011 when the ISCO88 classification was replaced by ISCO08 (ISTAT 2013). In the Chilean case, we used the National Socioeconomic Characterization Survey (CASEN) from 1992 to 2017 (data for 1992, 1994, 1996, 1998, 2000, 2003, 2005, 2009, 2011, 2013, 2015 and 2017).

Employment segmentation stems from the combination of two fundamental characteristics of employment: the classification of occupations and economic sectors. We decided to adopt the ISCO classification (ISCO08) while only considering the first digit, and ad hoc classification of the economic sector. In particular, the classification of the economic sector focuses on the tertiary sub-sectors, distinguishing between Traditional tertiary activities, Advanced activities, Public administration and Health & education. This choice is motivated by the recent process of labour market feminization, concentrated mainly within the occupations in the services sector.

**Table 1.** Classification of Occupation and Sector of Activity

<b>ISCO08 (1 digit)</b>	
1	Legislators, senior officials and managers
2	Professionals
3	Technicians and associate professionals
4	Clerks
5	Service workers and shop and market sales workers
6	Skilled agricultural and fishery workers
7	Craft and related trades workers
8	Plant and machine operators and assemblers
9	Elementary occupations
<b>ECONOMIC SECTOR (Eurostat 2008)</b>	



I	Primary sector – Agriculture, forestry and fishing (section A)
II	Secondary sector - Manufacturing, mining and quarrying and other industry, and construction (sections B–F)
IIIa	Tertiary sector – traditional activities: Wholesale and retail trade, transportation and storage, accommodation and food service activities (sections G–J)
IIIb	Tertiary sector – advanced activities: Financial and insurance activities, real estate activities, professional, scientific and technical activities (sections K–N)
IIIc	Tertiary sector – PA: Public administration (section O)
IIId	Tertiary sector – Education, human health and other services (sections P–U)

In Tables 2 and 3 there is the descriptive analysis of ISCO (1 digit) and the economic sectors.

**Table 2. Employment rates by ISCO (1 digit) in 1992 and 2017, all cases and women, by country**

ISCO	Italy				Chile			
	all cases		% women		all cases		% women	
	1992	2017	1992	2017	1992	2017	1992	2017
1	2.7	2.8	2.9	1.8	4.7	4.7	5.0	5.1
2	6.4	14.4	11.8	18.6	5.9	11.4	10.1	14.2
3	16.7	17.3	24.3	16.2	4.4	9.8	5.6	12.9
4	10.8	11.4	16.3	17.1	5.9	6.9	11.9	10.5
5	16.5	19.9	22.1	27.2	12.2	15.6	24.3	24.0
6	6.0	2.4	1.6	1.4	10.5	5.8	2.8	2.5
7	21.4	13.0	5.5	3.3	15.5	13.7	8.1	4.5
8	8.6	7.7	3.5	3.0	7.6	8.9	1.4	1.5
9	10.9	11.0	12.0	11.6	33.3	23.2	30.8	25.0
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	230140	199898	135162	94978	48927	90820	13912	38531

**Table 3. Employment rates by economic sector in 1992 and 2017, all cases and women, by country**

Sector	Italy				Chile			
	all cases		% women		all cases		% women	
	1992	2017	1992	2017	1992	2017	1992	2017
I	9.2	4.4	3.5	2.8	29.5	14.4	10.5	8.5
II	33.4	25.5	14.8	12.2	24.8	20.8	14.9	8.0
IIIa	24.4	27.5	24.0	25.5	21.5	30.3	25.9	31.7
IIIb	7.2	13.3	14.5	14.6	3.1	7.3	4.0	7.6
IIIc	7.8	5.1	5.8	5.1	2.0	5.1	2.3	5.5
IIId	17.9	24.1	37.4	39.9	19.2	22.1	42.5	38.7
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

N	230140	199898	135162	94978	48927	90820	13912	38531
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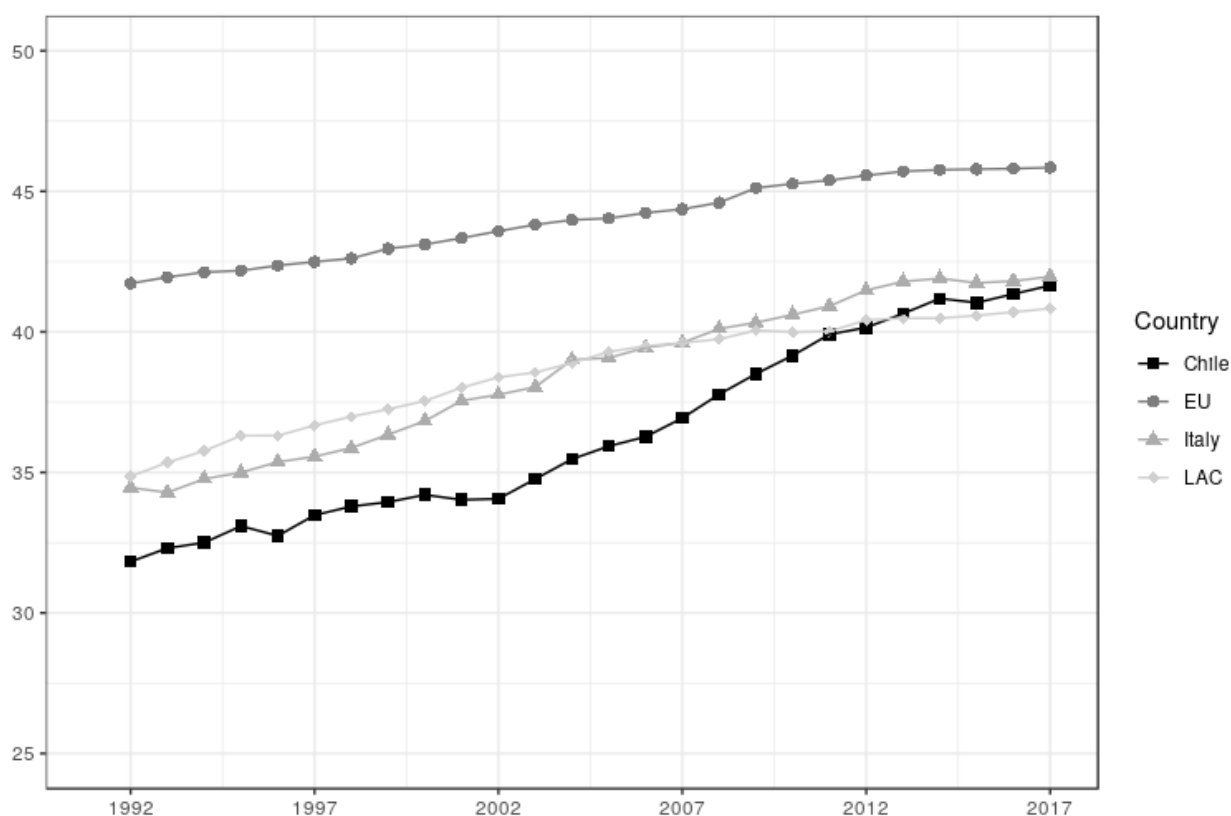
The two variables combined, generates a segmentation with 48 categories. It should be noted that, due to changes in the classifications across time, the sixth and seventh categories of ISCO have been partially collapsed. In particular, all ISCO 6 occupational groups and all ISCO 7 groups in the primary sector have been collapsed into sector 6-I (see below).

Employment segregation is the distribution of workers across and within occupations, based on demographic characteristics such as gender; horizontal segregation occurs across occupations, professions and activity sectors, while vertical segregation refers to the hierarchy of occupations within the organization. The literature has shown that high female employment rates are combined with high gender segregation; on the other hand, countries with lower employment rates (such as Italy with respect to the EU average) also show less gender segregation (Emerek et al. 2003).

Not necessarily, employment segregation is to be considered a disadvantage. Therefore, in our analysis we involve work income, which is the main resource associated with a job. The information collected in the surveys allows us to evaluate the decile of monthly work income. However, this information is only available from 2009, for both countries. We used this variable as a dichotomous variable (measuring the probability, for men rather than women, of having a work income higher than the 6th decile. According to the literature, we expect the differences to benefit the male component of employment.

## 5. Occupational segregation of women

According to the ILO statistics, women's employment rates rose in both Chile and Italy during the period 1992–2017. Chile grew by 9.6%, in Italy rose by 7.5%. Nevertheless, the female participation in both countries are below the European Union average, but slightly higher than the Latin American and Caribbean (LAC) rates. Since 2002, the rate of female employment has grown rapidly in Chile, reaching the Italian figure (41.7% versus 42.0%).



Source: Author's analysis based on ILO data

Our elaborations in Table 4, show that female employment rate in Chile, between 1992 and 2017, grew in almost all occupational groups, while in Italy the rate only increased for directors, professionals, clerks, service and sales workers, and elementary occupations. In 2017, in Chile women made up the majority (over 50%) of service and sales workers, clerks, technicians and professionals. Whereas in Italy, women formed the majority of clerks, service and sales workers, and professionals. An increase in the women's employment rate in all the tertiary sectors can be observed in both countries. However, women are strongly concentrated in low-skilled services or, if highly skilled, they are mainly employed in occupations linked to the health or education sectors. In fact, in 2017, in both countries, the women's employment rate was only greater than 50% in Sector IIIId (Education, human health and other services).

In other terms, in these 25 years women's employment rates mainly rose in all of the tertiary sectors (IIIa–IIIId): in low-skill occupations such as clerks, service and sales workers, and high-skill occupations, such as professionals (and in Chile also technicians).

**Table 4. Women's employment rates in occupational groups and sectors, by country (1992–2017)**

ISCO Sector	Italy			Chile		
	1992	2017	Δ	1992	2017	Δ
<b>Legislators, senior officials and managers</b>						
1 Primary	29.5	33.8	4.3	7.7	22.0	14.3

1	Secondary	11.3	16.3	5.0	18.2	21.7	3.5
1	Tertiary traditional	23.2	27.3	4.1	38.3	52.5	14.2
1	Tertiary advanced	12.4	29.0	16.6	23.9	25.4	1.5
1	Public administration	25.4	40.1	14.7	14.3	35.5	21.2
1	Education, human health and other services	21.0	46.6	25.6	31.6	57.2	25.6
<b>Professionals</b>							
2	Primary	-	40.0	40.0	15.7	28.7	12.9
2	Secondary	17.4	26.1	8.7	15.7	22.3	6.7
2	Tertiary traditional	33.1	38.8	5.7	31.6	36.9	5.3
2	Tertiary advanced	21.5	38.6	17.1	30.2	38.4	8.2
2	Public administration	35.7	49.1	13.4	48.2	52.7	4.5
2	Education, human health and other services	47.6	70.7	23.1	62.3	66.2	4.0
<b>Technicians and associate professionals</b>							
3	Primary	29.0	34.6	5.6	12.3	25.7	13.4
3	Secondary	24.8	23.7	-1.1	16.1	28.9	12.8
3	Tertiary traditional	30.5	26.6	-3.9	26.7	43.8	17.1
3	Tertiary advanced	32.6	40.2	7.6	33.6	51.1	17.6
3	Public administration	43.4	38.9	-4.5	34.8	51.8	17.0
3	Education, human health and other services	71.4	68.5	-2.9	56.9	74.3	17.5
<b>Clerks</b>							
4	Primary	49.1	63.9	14.8	45.1	49.4	4.3
4	Secondary	47.6	59.3	11.7	50.4	40.6	-9.8
4	Tertiary traditional	45.2	56.0	10.8	54.5	61.7	7.2
4	Tertiary advanced	53.8	74.5	20.7	55.5	70.9	15.3
4	Public administration	46.5	64.5	18.1	62.1	70.6	8.5
4	Education, human health and other services	61.9	75.8	13.9	72.5	79.8	7.3
<b>Service workers and shop and market sales workers</b>							
5	Primary	34.2	33.3	-0.8	23.3	37.2	13.9
5	Secondary	36.4	62.0	25.6	51.4	58.9	7.6
5	Tertiary traditional	47.6	55.5	7.9	52.6	61.5	8.9
5	Tertiary advanced	34.8	40.4	5.7	29.9	34.3	4.3
5	Public administration	12.5	15.6	3.1	16.1	24.4	8.4
5	Education, human health and other services	60.3	81.7	21.4	80.8	86.8	6.0
<b>Skilled agricultural and fishery workers</b>							
6	Primary	34.3	24.8	-9.5	7.5	18.2	10.7
<b>Craft and related trades workers</b>							
7	Secondary	17.6	10.2	-7.3	16.9	12.3	-4.6
7	Tertiary traditional	10.2	7.7	-2.6	14.0	20.3	6.4
7	Tertiary advanced	18.9	17.1	-1.8	9.1	8.5	-0.6
7	Public administration	9.7	1.8	-7.9	-	9.6	9.6
7	Education, human health and other services	22.3	35.4	13.2	5.0	15.7	10.7
<b>Plant and machine operators and assemblers</b>							
8	Primary	7.0	13.6	6.6	3.3	8.4	5.1
8	Secondary	25.4	21.5	-3.9	9.8	8.6	-1.2
8	Tertiary traditional	1.8	4.4	2.6	2.3	5.9	3.6
8	Tertiary advanced	11.6	39.8	28.2	-	7.6	7.6
8	Public administration	2.8	3.3	0.4	-	3.6	3.6
8	Education, human health and other services	16.4	21.2	4.8	7.0	13.1	6.1
<b>Elementary occupations</b>							
9	Primary	48.7	30.4	-18.4	11.3	31.4	20.1
9	Secondary	16.5	17.8	1.3	8.2	13.1	4.9
9	Tertiary traditional	27.4	23.5	-3.9	17.4	46.2	28.8
9	Tertiary advanced	55.4	60.5	5.1	13.7	42.9	29.2
9	Public administration	35.6	23.3	-12.4	6.5	46.1	39.6
9	Education, human health and other services	60.6	77.7	17.1	79.1	79.7	0.7

When analysing female employment rates by activity sector, we observe some differences within and between the two countries as well as many similarities.

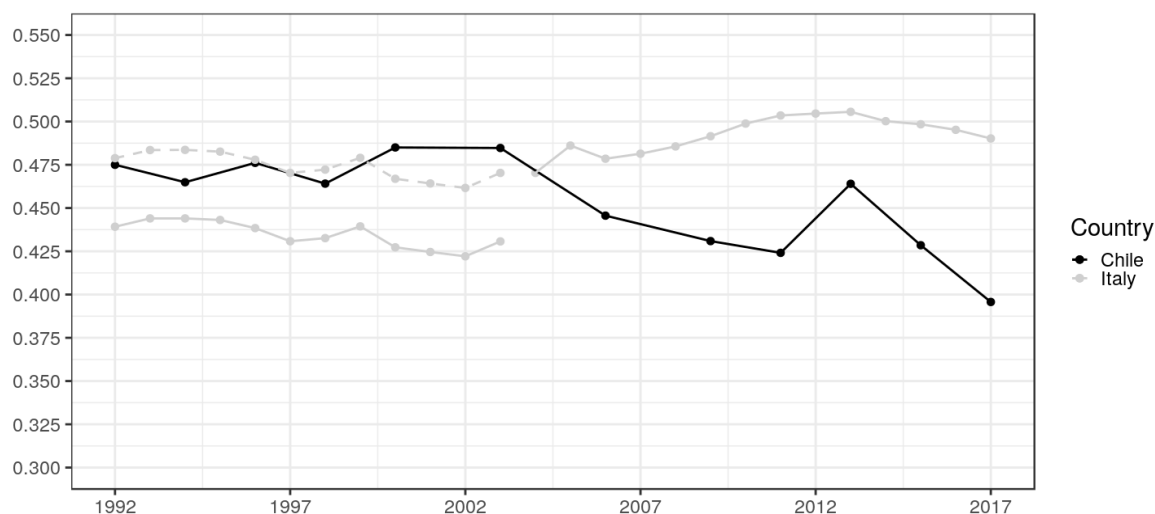
In high-skill occupations (ISCO 1–3) – such as legislators, senior officials, managers and professionals – female employment rates increased in all sectors and in both countries (with a special strength in the service sector). On the other hand, we notice that women are highly concentrated in only two sectors (Education, human health, other services and Public administration) while they are under-represented in the advanced tertiary sector, with few exceptions.

It is possible to observe the same growth trend for medium- and low-skill occupations (such as clerks, service and sales workers), with women’s employment growing in all activity sectors (except for clerks in sector II in Chile, and sales workers in sector I in Italy). Indeed, in 2017 in Italy women made up the majority of clerks in all sectors, and the structure of women’s employment within service and sales activities was similar in both countries.

In low-skill occupations – such as elementary occupations (ISCO 9) – women’s employment decreased almost everywhere in Italy but not in Chile, except for Education, health and other services, where women represent the large majority.

In short, from a general point of view it can be said that, although female employment rates increased in the period under consideration, with a strong acceleration in Chile, gender segregation is maintained in some service sectors, both for qualified profiles and for medium- to low-skill occupations.

**Figure 1. Women and Employment Index (WEI) trend by country (1992–2017)**



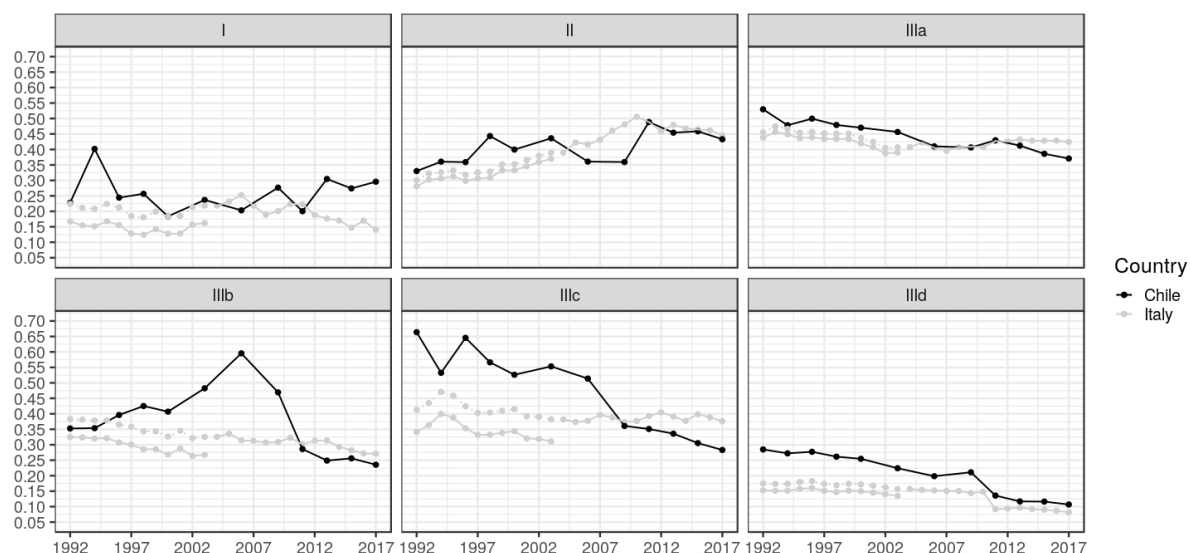
Source: Author's analysis based on WB data

Figure 1 shows the Women and Employment Index (WEI) trends for both countries.<sup>10</sup> As we can see, the WEI showed similar trajectories and some specific peculiarities

<sup>10</sup> Because of the methodological break in the Italian series from 2003 to 2004 (see above), we can reasonably assume that segregation in 2003 was the same as in 2004 (or similar), since there are no socio-economic reasons for an important change. If this is true, for Italy we have to refer to the dashed line

between 1992 and 2017 (Graph 2). While in Italy the WEI was stable in the period 1992–2003 (around 0.33 or 0.47), in Chile it grew from 0.47 to 0.48. Thereafter, in Italy the WEI grew until stabilizing at 0.51 in 2013 and after that decreased to 0.49 in 2017, whereas in Chile the index decreased from 0.48 to 0.42 in 2003–2009, then it rose to 0.40 in 2013, and finally it started to decrease again to 0.40 in 2017 (the lowest level reached in the period considered). The difference between countries (WEI 0.09 in 2017) may depend on the rapid feminization of employment in Chile with respect to Italy (Figure 1), which included more women professionals and technicians in the tertiary sector (Table 2), due to an increase in average education levels (Orellana 2011). Therefore, as the comparative analysis showed, labour market feminization, combined with higher levels of education, can reduce gender segregation. To continue the analysis, we consider the WEI by activity sector (Figure 2).

**Figure 2. Women and Employment Index (WEI) trend by activity sector (1992–2017)**



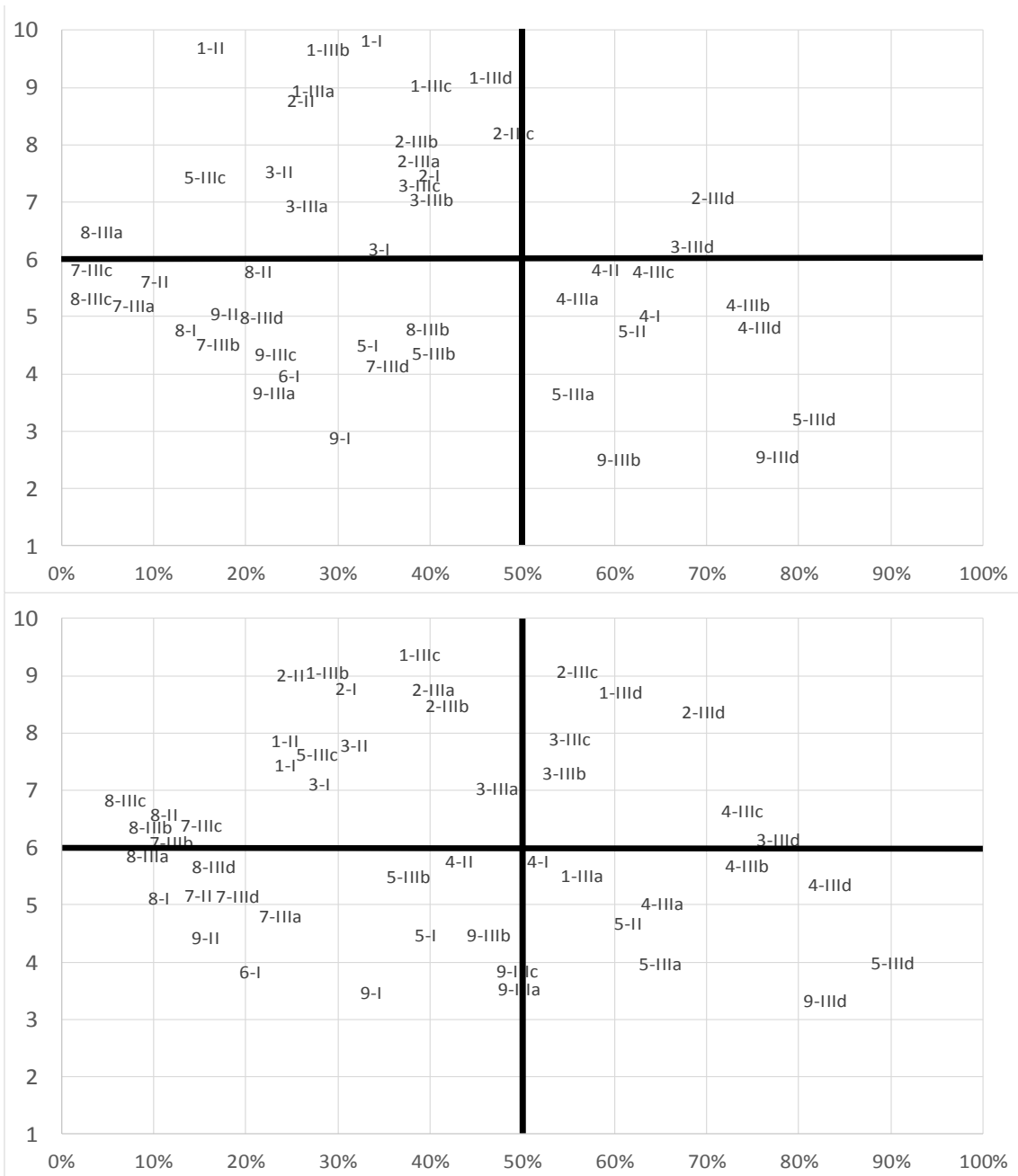
Source: Author's analysis based on WB data

rather than the continuous line in Figure 2. Otherwise, we have to consider two different periods, but the general interpretation of the trend does not change.

Firstly, it is useful to remember that, as explained above, the index is built by taking into account the dynamics of growth in female employment. Secondly, as a general trend, we can observe that the disparity index (WEI) remains substantially stable in the primary and secondary sectors. However, it is interesting to observe the tertiary sectors, where, as we have seen, the great majority of female employment is concentrated. Two trends stand out with particular intensity. One is that, while the index remains high in the traditional low-skill services, they drop significantly in the most qualified tertiary sectors, a sign that the level of qualification and education contributes to decreasing gender segregation. The second is the difference between the countries: while the index is substantially stable in Italy, it decreases a lot in Chile, especially in the Public administration (from 0.66 to 0.28) and in the Advanced services sector (from 0.35 to 0.24). In Sector III d (Education, health and other services) both countries display similar trajectories and in 2017 it reached the lowest WEI of all the sectors (in Chile the WEI dropped sharply from 0.29 to 0.11 and in Italy from 0.15 to 0.08). As could be expected, the industrial sector is the one that maintains the highest and most persistent gender dissimilarity index.

In summary, between 1992 and 2017 the WEI showed a similar path in the tertiary and secondary sectors. However, the decrease of the WEI in the tertiary sector shows that segregation had been falling, but always within occupational groups and activity sectors traditionally occupied by women.

How as was assumed in the initial part of the chapter, there is an association between gender employment segregation and the gender pay gap.



If we consider the overall probability, for a man rather than a woman, of having a work income above the 6th decile, in Italy in 2017 this probability was 0.19, instead in Chile it was only 0.10.

These probabilities are constant over time, from 2009 to 2017 (the period for which data on job earnings are available). In particular, the detailed probability differences between the occupational segments highlight some interesting aspects (see Table 5).

In both countries, women systematically have lower pay than men. In particular, the pay gap seems higher in the secondary sector of industry and manufacturing (II) and in the traditional (IIIa) and advanced (IIIb) tertiary sectors, and lower in the public administration sector and in health and education activities (IIIc and IIId), as was obvious to expect. Moreover, the pay gap is higher in the intermediate ISCO categories (technicians, clerks, service and sales workers) while it is lower both among the most



qualified occupations (legislators, senior official managers and professionals) and among the elementary occupations.

However, it should be taken in account that some possible confounders could modify with pay gap interacting with the income distribution, as part-time work, age and educational level. Further studies and multivariate models will be necessary to control for these possible confounders.

**Table 5. Male–female difference in the probability of having a higher than 6th job income decile in 2017**

Gap % Men/Women in p>0.6 2017			
ISCO	Sector	Italy	Chile
1	I	100.0*	29.5*
1	II	3.6*	22.9
1	IIIa	7.4	23.6
1	IIIb	-2.4	12.0
1	IIIc	-5.6	-4.0*
1	IIId	4.4	8.6*
2	I	42.9*	-0.5
2	II	9.0	2.5
2	IIIa	22.3	8.7
2	IIIb	15.4	3.1
2	IIIc	7.2	2.1
2	IIId	14.6	2.5
3	I	41.4*	13.7*
3	II	26.1	16.0
3	IIIa	24.7	13.0
3	IIIb	25.0	7.6
3	IIIc	18.1	14.8
3	IIId	6.4	15.5
4	I	32.9*	24.5*
4	II	27.9	25.7
4	IIIa	17.4	15.5
4	IIIb	32.1	21.5
4	IIIc	13.2	14.9
4	IIId	16.7	13.9
5	I	17.3*	17.9*
5	II	34.2	23.7*
5	IIIa	16.1	13.0

5	IIIb	19.0	9.1*
5	IIIc	21.2	19.3
5	IIIId	15.3	17.2
6	I	9	9.8%
7	II	28.8	24.7
7	IIIa	21.1	28.8*
7	IIIb	29.4	36.5*
7	IIIc	-11.7*	4.7*
7	IIIId	24.8	7.3*
8	I	13.7*	18.7*
8	II	31.7	37.7*
8	IIIa	40.3	12.6
8	IIIb	29.9	37.9*
8	IIIc	28.0*	20.8*
8	IIIId	26.4	27.3*
9	I	6.4	2.8*
9	II	16.7	6.9*
9	IIIa	14.9	5.5%
9	IIIb	11.7	12.4*
9	IIIc	10.8	11.6*
9	IIIId	6.6	6.6*

\*subsamples with size less than 50 cases.

## 5. Conclusions

The transnational comparative analysis allowed us to investigate some crucial aspects of gender employment segmentation, showing the persistence of segregation in certain sectors and occupational groups.

Starting from a similar and common low female employment rate, the study highlighted that the two countries share a significant gender segregation – measured by the dissimilarity index in occupational groups and activity sectors. More than 60% of women are concentrated in medium- to low-skill occupations. As far as gender segregation by activity sector is concerned, the results show that the primary, secondary and traditional tertiary sectors have a similar gender composition in both countries. The very great majority of women are employed in Education, health and other services, whether they are high-skilled (ISCO 1–3) or in low-skill jobs (ISCO 4–5), with percentages around 70% in the first case and above 80% in the second. Nevertheless, in the Advanced tertiary sector (IIIb), Public administration (IIIc) and with minor intensity Health and education (IIId), Chile shows a greater decrease in segregation than Italy. Looking at the temporal trend, low-skilled female employment has increased in Italy (ISCO 4) and therefore we can see a deskilling process, while in Chile the growth has mainly occurred in the technical and professional areas.

Within a convergent framework, there are however some differences to be underlined. Over the past twenty-five years, horizontal gender segregation has remained stable in Italy, while it has decreased slightly in Chile in the last decade. The most recent process of labour market feminization in Chile has probably affected the lower occupational segregation of young (more educated) women entering the labour market. The persistence of gender segregation in Italy instead reflects a crystallized structure of labour market segmentation between women and men, with a more significant impact. Moreover, the analysis confirms that the activity sectors with a significant prevalence of women are also the sectors where wages are lower. In other words, the more feminised the sectors of activity, the more they tend to be devalued economically, through an average lowering of wages, while the opposite occurs in sectors with a strong male component. On average, the probabilities of a man rather than a woman having an earned income exceeding the 6th decile is 0.19 in Italy and 0.10 in Chile.

As we anticipated, wage differentials depend largely on the fact that employment is distributed differently between women and men, in terms of economic sectors (horizontal segregation) and employment positions (vertical segregation). This does not mean that, as a consequence of social stereotypes and business ideology and practices, part of the gender pay gap is attributable to discriminatory behaviours in the hiring and management of human resources and careers.

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